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14 February 2005

Re : International patent application number PCT/2004/000234
Our ref. : 1.164.002 WO

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Dear Sirs,

Subsequent to your first written opinion drawn up in relation to the above-identified International Patent Application I herewith reply to your opinion.

KvK 17127942
VAT 807708926

I agree with your objections under item 2.1 and item 3.1 that claim 1 and claim 15 lack novelty over US 6,373,508 (D1).



To overcome the objection raised under item 2.1 claim 1 is amended by contracting claim 1 and claim 2 as originally filed, wherein the preamble of amended claim 1 is formed by the characterizing part of claim 1 as originally filed, and wherein the characterizing part of amended claim 1 is formed by technical features of claim 2 as originally filed.

Amended claim 1 reads as follows, wherein the amendments processed are marked:

- "1. Localization system, comprising:
- means for generating an energy field, wherein the energy field is formed by one or more pulse streams,
 - at least one disrupting means for locally disrupting the energy field,
 - detecting means for detecting the local disruption of the energy field, and
 - a control unit coupled to the detecting means for localizing the disrupting means on the basis of the detected local disruption,

characterized in that the means for generating the energy field are adapted to transmit pulse beams of a plurality of pulse streams, wherein at least two pulse streams of a pulse beam are oriented at least substantially parallel to each other."

Amended claim 1 is novel over the prior art, since nowhere in the prior art, in particular D1, the characterizing part of claim 1 is disclosed. Amended claim 1 also involves an inventive step over the prior art, which will be elucidated hereinafter. Considering D1 as being the closest prior art, a problem of the system disclosed in D1 is that the amount of data which can be transmitted by pulses in period of time is restricted considerably. In case of tracking and tracing of moving objects, animals or persons, it is commonly desired to transmit an increased amount of data in a period of time. A solution to increase the data transmission speed may be found by decreasing the mutual distance between the pulses following one another and hence to increase the speed of succession of the pulses. However, this will lead to a need to make the detecting means decrypting the pulse signal means more sensitive and advanced, thereby requiring more expensive detecting means. It is therefore an object of the invention to improve the data transmission speed of the system without needing more sensitive and hence more expensive detecting means. A solution for this problem is given in the characterizing part of amended claim 1, wherein it is stated to apply multiple pulse streams which are oriented at least substantially parallel to each other. Instead of compressing the pulse signal (in accordance with the prior art), the pulse signal is split up into multiple pulse streams thereby making the system according to the invention relatively robust and insensitive for electromagnetic interference and, moreover, relatively cheap. This reasoning can more or less also be found in the description of the present application as originally filed on page 3, lines 1-13. Since the invention according to amended claim 1 discloses a non-obvious solution for providing a system suited for high speed data transmission without needing more sensitive and hence more expensive detecting means, it will be clear that amended claim 1 is besides novel in the sense of Article 33(2) PCT also inventive in the sense of Article 33(3) PCT, and does therefore meet the criteria of Article 33(1) PCT.

To overcome your objection raised under item 3.1 claim 15 is amended in accordance with claim 1. Amended claim 15 reads as follows, wherein the amendments processed are marked:

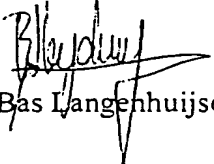
"15. Method for localizing objects or animals using a system as claimed in any of the claims 1-14, comprising the steps of:

- A) generating an energy field, wherein the energy field is formed by multiple pulse streams, wherein at least two pulse streams are oriented at least substantially parallel to each other.
- B) placing in the energy field at least one object or animal provided with at least one disrupting means for locally disrupting the energy field,
- C) detecting the local disruption of the energy field, and
- D) localizing the object or animal on the basis of the detected local disruption.”

A basis for this amendment can be found in claim 2, in figure 1, and in the description on page 6, lines 5-7 of the application as originally filed. Amended claim 15 is both novel in the sense of Article 33(2) PCT and involves an inventive step in the sense of Article 33(3) PCT based on the comprehensive reasoning related to amended claim 1 as elucidated above, and therefore meets the criteria of Articles 33(1) PCT.

Please find with this letter enclosed an amended set of claims. The description will be brought into conformity with the claims after consensus is reached about the content of the claims. For your convenience an extra copy is enclosed in which the amendments are represented in bold.

Yours faithfully,
The representative


Bas Langenhuijsen

Enclosed with this letter amended claims and description PCT/2004/000234

Claims

1. Localization system, comprising:

- means for generating an energy field, wherein the energy field is formed by one
5 or more pulse streams,

- at least one disrupting means for locally disrupting the energy field,

- detection means for detecting the local disruption of the energy field, and

- a control unit coupled to the detection means for localizing the disrupting means
on the basis of the detected local disruption,

10 characterized in that the means for generating the energy field are adapted to transmit
pulse beams of a plurality of pulse streams, wherein at least two pulse streams of a pulse
beam are oriented at least substantially parallel to each other.

2. Localization system as claimed in claim 1, characterized in that each pulse beam
15 comprises nine pulse streams, which pulse streams are oriented at least substantially
parallel to each other.

3. Localization system as claimed in claim 1 or 2, characterized in that the
disrupting means is arranged on at least one object.

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4. Localization system as claimed in claim 1 or 2, characterized in that the
disrupting means is arranged on an animal.

5. Localization system as claimed in claim 4, characterized in that the disrupting
25 means is arranged on a person.

6. Localization system as claimed in any of the claims 1-5, characterized in that the
disrupting means is adapted to disrupt the energy field in unique manner.

30 7. Localization system as claimed in any of the foregoing claims, characterized in
that the disrupting means is adapted to reflect the pulse streams.

8. Localization system as claimed in any of the foregoing claims, characterized in
that the disrupting means is adapted to influence the pulse streams.

9. Localization system as claimed in any of the foregoing claims, characterized in that the disrupting means is formed by a chip.

5 10. Localization system as claimed in any of the claims 1-8, characterized in that the disrupting means is formed by a coating.

11. Localization system as claimed in any of the foregoing claims, characterized in that the localization system is provided with visual means communicating with the
10 control unit for displaying the location of the detected disrupting means.

12. Localization system as claimed in claim 11, characterized in that the communication between the control unit and the visual means takes place wirelessly via electromagnetic radiation.

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13. Localization system as claimed in claim 11, characterized in that the communication between the control unit and the visual means takes place wirelessly via pulse streams.

20 14. Method for localizing objects or animals using a localization system as claimed in any of the claims 1-13, comprising the steps of:

A) generating an energy field, wherein the energy field is formed by one or more pulse streams, wherein at least two pulse streams are oriented at least substantially parallel to each other,

25 B) placing in the energy field at least one object or animal provided with at least one disrupting means for locally disrupting the energy field,

C) detecting the local disruption of the energy field, and

D) localizing the object or animal on the basis of the detected local disruption.

30 15. Method as claimed in claim 14, characterized in that the method is provided with a step E) comprising of visualizing the location of the object or animal after localizing the object or animal on the basis of the detected local disruption as according to step D).

16. Method as claimed in claim 14 or 15, characterized in that while step B) is being performed a person provided with at least one disrupting means is placed in the energy field to locally disrupt the energy field.

Claims

(Amendments marked)

1. Localization system, comprising:

- 5 - means for generating an energy field, wherein the energy field is formed by one or more pulse streams,
- at least one disrupting means for locally disrupting the energy field,
 - detection means for detecting the local disruption of the energy field, and
 - a control unit coupled to the detection means for localizing the disrupting means
- 10 on the basis of the detected local disruption.

~~2. Localization system as claimed in claim 1, characterized in that the means for generating the energy field are adapted to transmit pulse beams of a plurality of pulse streams, wherein at least two pulse streams of a pulse beam are oriented at least substantially parallel to each other.~~

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23. Localization system as claimed in claim 12, characterized in that each pulse beam comprises nine pulse streams, which pulse streams are oriented at least substantially parallel to each other.

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34. Localization system as claimed in ~~any of the claims 1 or 2-3,~~ characterized in that the disrupting means is arranged on at least one object.

45. Localization system as claimed in ~~any of the claims 1 or 2-3,~~ characterized in that the disrupting means is arranged on an animal.

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56. Localization system as claimed in claim 45, characterized in that the disrupting means is arranged on a person.

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67. Localization system as claimed in any of the claims 1-56, characterized in that the disrupting means is adapted to disrupt the energy field in unique manner.

78. Localization system as claimed in any of the foregoing claims, characterized in that the disrupting means is adapted to reflect the pulse streams.

89. Localization system as claimed in any of the foregoing claims, characterized in that the disrupting means is adapted to influence the pulse streams.

940. Localization system as claimed in any of the foregoing claims, characterized in that the disrupting means is formed by a chip.

1044. Localization system as claimed in any of the claims 1-89, characterized in that the disrupting means is formed by a coating.

1142. Localization system as claimed in any of the foregoing claims, characterized in that the localization system is provided with visual means communicating with the control unit for displaying the location of the detected disrupting means.

1243. Localization system as claimed in claim 1142, characterized in that the communication between the control unit and the visual means takes place wirelessly via electromagnetic radiation.

1344. Localization system as claimed in claim 112, characterized in that the communication between the control unit and the visual means takes place wirelessly via pulse streams.

1445. Method for localizing objects or animals using a localization system as claimed in any of the claims 1-134, comprising the steps of:

- A) generating an energy field, wherein the energy field is formed by one or more pulse streams, wherein at least two pulse streams are oriented at least substantially parallel to each other.
- B) placing in the energy field at least one object or animal provided with at least one disrupting means for locally disrupting the energy field,
- C) detecting the local disruption of the energy field, and
- D) localizing the object or animal on the basis of the detected local disruption.

1546. Method as claimed in claim 1445, characterized in that the method is provided with a step E) comprising of visualizing the location of the object or animal after

localizing the object or animal on the basis of the detected local disruption as according to step D).

- 5 16~~17~~. Method as claimed in claim 14~~15~~ or 15~~16~~, characterized in that while step B) is being performed a person provided with at least one disrupting means is placed in the energy field to locally disrupt the energy field.